

Application/Control Number: 09/874,873
Art Unit: 2613

Docket No.: 2001-0161

AMENDMENT

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 - 4. (cancelled)

5. (currently amended) ~~The system of claim 4, wherein the mapper further comprises:~~ A system for content adaptive encoding of data comprising:

(1) an extractor that divides video content into temporal portions;

(2) a locator that associates descriptors to each portion based on portion content, the locator further locating at least one of subsegments and regions of interest;

(3) a mapper that maps each portion of the video content to a model from a plurality of models based on the portion descriptors, the mapper further comprising:

(a) a plurality of content model units, each content model unit of the plurality of content model units being associated with a model of the plurality of models;

(b) a plurality of comparators, each comparator of the plurality of comparators connected to a content model unit and an output from the extractor or an output from the locator; and

(c) a plurality of selectors, wherein each selector of the plurality of selectors is connected to two of the comparators; and

(4) a plurality of encoders, each encoder of the plurality of encoders configured to encode portions according to the model associated with the portion.

Application/Control Number: 09/874,873
Art Unit: 2613

Docket No.: 2001-0161

6. (original) The system of claim 5, wherein the plurality of content model units further comprises a generic content model unit.

7. (original) The system of claim 6, wherein the mapper outputs from the selectors a signal that controls a switch to route portions to one of the plurality of encoders.

8 - 39 (cancelled).

40. (new) A system for content adaptive encoding of data comprising:

- (1) means for dividing video content into temporal portions;
- (2) means for associating descriptors to each portion based on portion content, the means for associating descriptors further locating at least one of subsegments and regions of interest;
- (3) means for mapping each portion of the video content to a model from a plurality of models based on the portion descriptors, the means for mapping further comprising:
 - (a) a plurality of content model units, each content model unit of the plurality of content model units being associated with a model of the plurality of models;
 - (b) a plurality of comparators, each comparator of the plurality of comparators connected to a content model unit and an output from the extractor or an output from the locator; and
 - (c) a plurality of selectors, wherein each selector of the plurality of selectors is connected to two of the comparators; and
- (4) a plurality of encoders, each encoder of the plurality of encoders configured to encode portions according to the model associated with the portion.

Application/Control Number: 09/874,873
Art Unit: 2613

Docket No.: 2001-0161

41. (new) The system of claim 40, wherein the plurality of content model units further comprises a generic content model unit.

42. (new) The system of claim 41, wherein the means for mapping outputs from the selectors a signal that controls a switch to route portions to one of the plurality of encoders.

43. (new) A method for content adaptive encoding of data, the method comprising:

- (1) dividing video content into temporal portions;
- (2) associating descriptors to each portion based on portion content, the means for associating descriptors further locating at least one of subsegments and regions of interest;
- (3) mapping each portion of the video content to a model from a plurality of models based on the portion descriptors, the step of mapping each portion utilizing:
 - (a) a plurality of content model units, each content model unit of the plurality of content model units being associated with a model of the plurality of models;
 - (b) a plurality of comparators, each comparator of the plurality of comparators connected to a content model unit and an output from the extractor or an output from the locator; and
 - (c) a plurality of selectors, wherein each selector of the plurality of selectors is connected to two of the comparators; and
- (4) encoding each portion of the video content using one of a plurality of encoders, each encoder of the plurality of encoders configured to encode portions according to the model associated with the portion.

44. (new) The method of claim 43, wherein the plurality of content model units further comprises a generic content model unit.

Application/Control Number: 09/874,873
Art Unit: 2613

Docket No.: 2001-0161

45. (new) The method of claim 44, wherein the step of mapping each portion of the video content further comprises outputting from the selectors a signal that controls a switch to route portions to one of the plurality of encoders.

46. (new) A computer-readable medium storing instructions for controlling a computing device to adaptively encode data based on content, the instructions comprising:

- (1) dividing video content into temporal portions;
- (2) associating descriptors to each portion based on portion content, the means for associating descriptors further locating at least one of subsegments and regions of interest;
- (3) mapping each portion of the video content to a model from a plurality of models based on the portion descriptors, the step of mapping each portion utilizing:
 - (a) a plurality of content model units, each content model unit of the plurality of content model units being associated with a model of the plurality of models;
 - (b) a plurality of comparators, each comparator of the plurality of comparators connected to a content model unit and an output from the extractor or an output from the locator; and
 - (c) a plurality of selectors, wherein each selector of the plurality of selectors is connected to two of the comparators; and
- (4) encoding each portion of the video content using one of a plurality of encoders, each encoder of the plurality of encoders configured to encode portions according to the model associated with the portion.

47. (new) The computer-readable medium of claim 46, wherein the plurality of content model units further comprises a generic content model unit.

Application/Control Number: 09/874,873
Art Unit: 2613

Docket No.: 2001-0161

48. (new) The computer-readable medium of claim 47, wherein the step of mapping each portion of the video content further comprises outputting from the selectors a signal that controls a switch to route portions to one of the plurality of encoders.